[0116] Synthesis of gold and silver nano particles was effected by adding minute quantities of silver nitrate and gold chloride stock solutions [concentration 50,000 ppm and 25,000 ppm respectively] to 10 ml of the aqueous extract. The resultant solution was mixed thoroughly for one hour. Samples were drawn and checked for various parameters as described in example 1. Characteristic plasmon peak of silver nano particles at 410 nm and for gold nano particles at 530 was observed. TEM image of silver nano particles also confirms the formation particles in the range of 10-50 nm for silver and 30 to 80 for gold.

EXAMPLE 14

[0117] 50 gms of fresh fish [pomfret—*Pampus argentus*] was ground in a tissue homogenizer and mixed with 150 ml deionized water until a homogenous viscous suspension was formed. The viscous solution was filtered through Whatman no 1 filter paper under vacuum to obtain a clear solution. This solution was diluted 10 fold and the open circuit potential and pH was measured as described in example 1 and found to be +0.09 Volt and 7.2 respectively. The concentration of total organic carbon was measured using Beckman TOC analyzer and was found to be 34,200 ppm.

[0118] Synthesis of gold and silver nano particles was effected by adding minute quantities of silver nitrate and gold chloride stock solutions [concentration 50,000 ppm and 25,000 ppm respectively] to 10 ml of the aqueous extract. The resultant solution was mixed thoroughly for one hour. Samples were drawn and checked for various parameters as described in example 1.

[0119] Characteristic plasmon peak of silver nanoparticles at 410 nm and for gold nano particles at 530 was observed. TEM image of silver nano particles also confirms the formation particles in the range of 10-50 nm for silver and 30 to 80 for gold.

EXAMPLE 15

[0120] 50 gms of freshly harvested culture in pellet form of *Escherichia coli* was sonicated in deionized water for 15 minutes the resultant suspension was centrifuged at 8000 G and the clear supernatant was diluted 10 fold and the open circuit potential and pH was measured as described in example 1 and found to be +0.1 Volt and 6.7 respectively. The concentration of total organic carbon was measured using Beckman TOC analyzer and was found to be 24,000 ppm.

[0121] Synthesis of gold and silver nano particles was effected by adding minute quantities of silver nitrate and gold chloride stock solutions [concentration 50,000 ppm and 25,000 ppm respectively] to 10 ml of the aqueous extract. The resultant solution was mixed thoroughly for one hour. Samples were drawn and checked for various parameters as described in example 1. characteristic plasmon peak of silver nanoparticles at 420 nm and for gold nano particles at 550 was observed. TEM image of silver nano particles also confirms the formation particles in the range of 10-50 nm for silver and 30 to 80 for gold.

EXAMPLE 16

[0122] Water having conductivity of 2.7 microSiemens was used in experiment.

[0123] 5 whole leaves of Aloe-vera (55.37 gm wet wt) were washed, peeled and macerated with 150 ml of deionized water in a blender (500 rpm) for 10 minutes to get a homogenous viscous suspension. This viscous suspension was filtered through Whatman No 1 filter paper under vacuum to obtain a clear 165 ml of viscous solution. To this solution 50 ml of n-cyclohexane was added and the resultant was thoroughly shaken in a separating funnel. The cyclohexane extract was separated and the contents were re-extracted in 150 ml of deionized water. From this stock an aliquot of 10 ml was diluted to 200 ml with deionized water and mixed thoroughly by shaking to get a free flowing solution. The open circuit potential and pH was measured as described in example 1 and found to be +0.11 Volts and 6.8 respectively. The concentration of total organic carbon was measured using Beckman TOC analyzer and was found to be 19,200 ppm.

[0124] Synthesis of gold and silver nano particles was effected by adding minute quantities of silver nitrate and gold chloride stock solutions [concentration 50,000 ppm and 25,000 ppm respectively] to 10 ml of the aqueous extract. The resultant solution was mixed thoroughly for one hour. Samples were drawn and checked for various parameters as described in example 1. Characteristic plasmon peak of silver nano particles at 420 nm and for gold nano particles at 550 was observed. TEM image of silver nano particles also confirms the formation particles in the range of 20-40 nm for silver and 5 to 10 for gold.

[0125] All the above examples were carried out at a temperature around 25 degrees Celsius.

[0126] The examples show that the aqueous extracts of macerated cells of biological tissue are excellent agents for stabilization of submicronic particles. Additionally, they are an eco friendly reducing agent in the synthesis of gold and silver sub micronic particles.

1. A sub micronic particle stabilizing solution comprising an aqueous extract of macerated biological cells having pH of 5.5 to 7.5, open circuit potential between +0.02 to +0.2 volt, temperature between 20 degrees to 30 degrees Celsius and concentration of total organic carbon being at least 18,000 ppm.

2. A sub micronic particle stabilizing solution as claimed in claim 1, in which the biological cells are plant cells.

3. A sub micronic particle stabilizing solution as claimed in claim 1, in which the biological cells are cells of at least one plant tissue selected from a group of tissues comprising living tissue of leaves, fruits, stems, roots and flowers and parts thereof.

4. A sub micronic particle stabilizing solution as claimed in claim 1, in which the biological cells are animal cells.

5. A sub micronic particle stabilizing solution as claimed in claim 1, in which the biological cells are cells of at least one animal tissue selected from a group of tissues consisting of tissues of worms, insects, fishes, mollusks, crustaceans, and higher animals

6. A sub micronic particle stabilizing solution as claimed in claim 1, in which the cells are microbial cells.

7. A sub micronic particle stabilizing solution as claimed in claim 1, in which the cells are selected from a group of microbes which include bacteria, fungi, yeasts, viruses, protozoa and algae.

8. A method of making a sub micronic particle stabilizing solution as claimed in claim 1, which comprises the steps of